



TEST PAPER: MATHEMATICS

Time: 90 Minutes

Class: 8th C.B.S.E.

Max. Marks: 50 Marks

Date: 22nd July, 2018

Marking Scheme: Four questions carry 10 marks each. Questions have 3 subparts each. Subparts (a) and (b) carry 3 marks each and subpart (c) carries 4 marks.

Question 1:

a. Solve:

$$\frac{x}{3} - \frac{x}{2} = -1$$

b. Seven times the number is 36 less than 10 times the number. Find the number.

c. I have a total of \$300 in coins of denomination \$1, \$2 and \$5. The number of \$2 coins is 3 times the number of \$5 coins. The total number of coins is 160. How many coins of each denomination are with me?

Question 2:

a. Solve:

$$\frac{x-2}{2} - \frac{x+2}{3} = 10$$

b. Arrange the following numbers in ascending order:

$$\frac{-21}{105}, \frac{12}{21}, \frac{16}{5}, \frac{20}{105}$$

c. Solve:

$$2(x-2) - 5(x-5) = 4(x-8) - 2(x-2)$$

Question 3:

a. Rene is 6 years older than her younger sister. After 10 years, the sum of their ages will be 50 years. Find their present ages.

b. Simplify: $(\frac{3}{2} - \frac{1}{6}) + (\frac{5}{3} + \frac{7}{2}) - (\frac{27}{8} \times \frac{4}{3})$

c. i. The sum of two rational numbers is -7. If one of them is $-\frac{11}{3}$, find the other.

ii. State the additive inverse and multiplicative inverse of $-3\frac{2}{5}$

Question 4:

a. By what number should we multiply $(-\frac{8}{13})$, so that the product may be 24?

b. Represent $-\frac{11}{3}$ on the number line.

c. Find the value of.

(i) $(3^0 + 4^{-1}) \times 2^2$

(ii) $(2^{-1} \times 4^{-1}) \div 2^{-2}$

Question 5:

a. Find the value and express as a rational number in standard form:

(i) $\frac{2}{5} \div \frac{26}{15}$

(ii) $\frac{10}{3} \div (-\frac{35}{12})$

b. From a rope 11 m long, two pieces of lengths $\frac{13}{5}$ m and $\frac{33}{10}$ m are cut off. What is the length of the remaining rope?

c. Find 4 rational numbers between $\frac{2}{3}$ and $\frac{6}{7}$.